

CLAIMS

1. An electronic component mounted in an individual package and intended to be connected to other
5 components of an electronic system, this component being characterized in that it comprises at least one integrated circuit chip (22) working around a main millimetric frequency F greater than 45 GHz, and in that the package has at least two ports (30 and 40) for
10 communicating electrical signals between the interior and the exterior of the package, the first port (30) being a port with transition by contactless electromagnetic coupling for the transmission of signals at the main working frequency greater than
15 45 GHz, and the second port (40) being a port with microstrip or coaxial type transition for the transmission of a working frequency F/N that is a subharmonic of the main frequency F .
- 20 2. The component as claimed in claim 1, characterized in that the package is provided with a conductive cover (25) positioned at a distance from the first port such that it sets up, above this port, an electromagnetic short circuit at the main working frequency, thus
25 forming a wave reflector facilitating the transmission of this frequency through the first port.
3. The component as claimed in claim 2, characterized in that the conductive cover is at a height above the
30 port equal to a quarter of the wavelength, or an odd multiple of the quarter of the wavelength of the working frequency.
4. The component as claimed in one of claims 1 to 3,
35 characterized in that one of the chips included in the package comprises means of multiplying frequency in a ratio N to change from the subharmonic frequency to the main working frequency.

5. The component as claimed in one of claims 1 to 4, characterized in that it comprises a ceramic substrate (24), a first metallized side of which is etched to form a microstrip line (26) having a free end (36) and
5 another side of which is also metallized to form a ground plane, the ground plane being interrupted facing the free end, to provide contactless electromagnetic coupling between the outside and the inside of the package via the line end.
- 10 6. The component as claimed in claim 5, characterized in that the conductive cover is at a height above the free end of the microstrip line equal to a quarter of the wavelength, or an odd multiple of a quarter of the
15 wavelength of the working frequency.
7. The component as claimed in either of claims 5 and 6, characterized in that it includes a metallic base (20) open facing the microstrip line end (36).
- 20 8. The component as claimed in one of claims 1 to 4, characterized in that it includes one or more MMIC chips fixed on a base, one of the chips including a microstrip line, of which one free end is used as a
25 contactless electromagnetic transition, this chip extending over an opening in the base so that the free end of the line is located in line with the opening, in order to form a contactless electromagnetic transition through this opening.